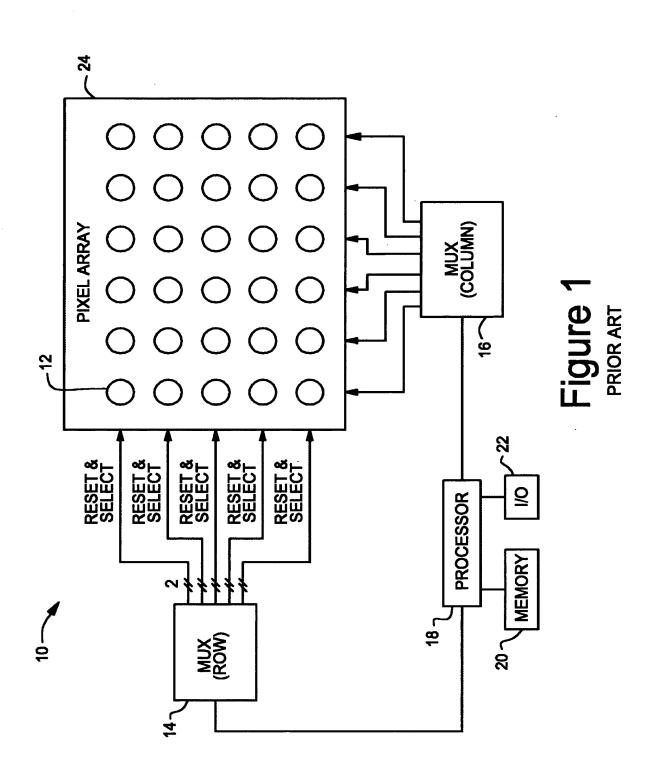HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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Figure 1
PRIOR ART

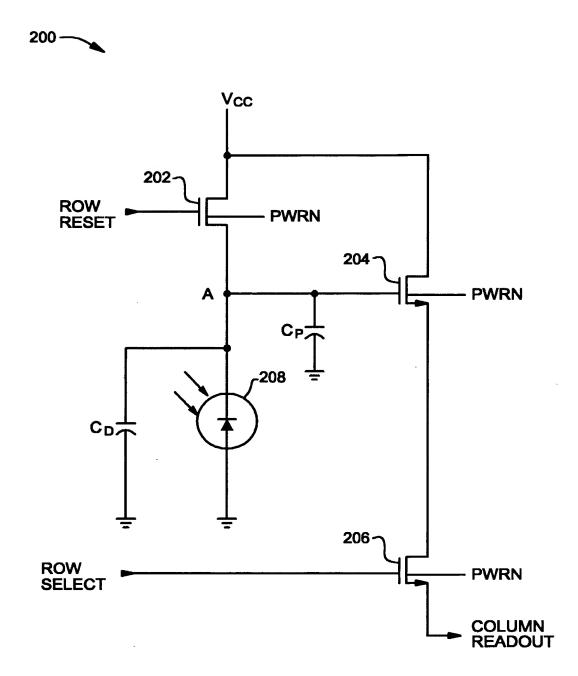HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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Figure 2
(PRIOR ART)

HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
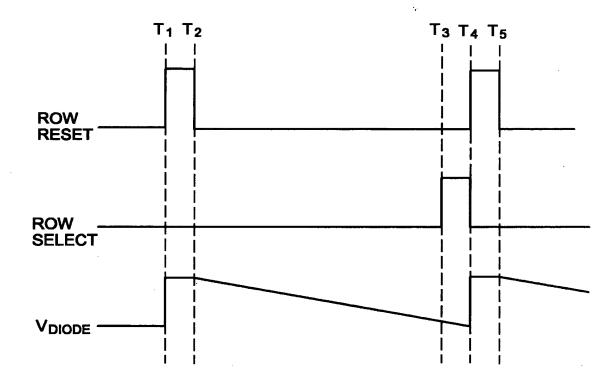Docket No.: M & G 50019.76US01/P05025

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Figure 3
PRIOR ART

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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Figure 4

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
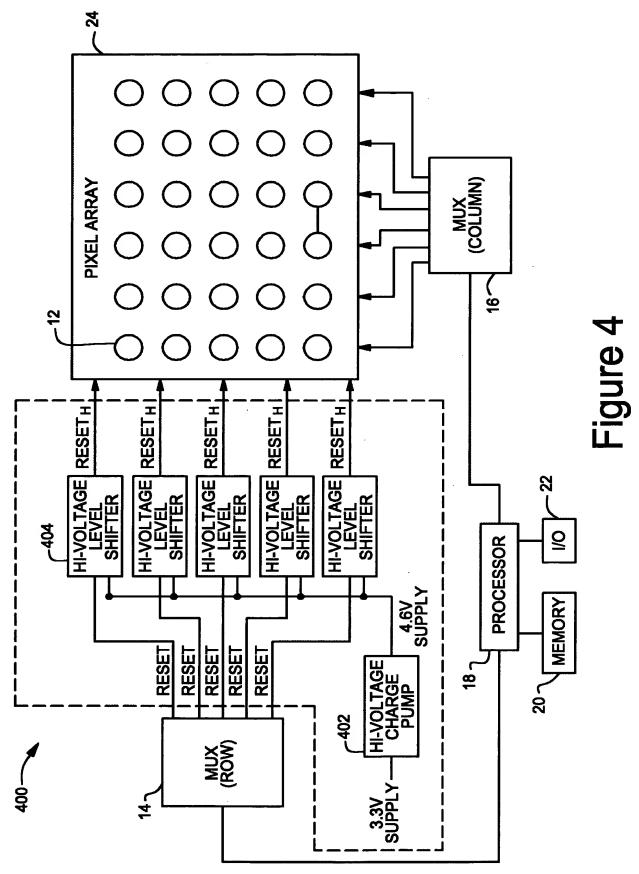Docket No.: M & G 50019.76US01/P05025

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Figure 5

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
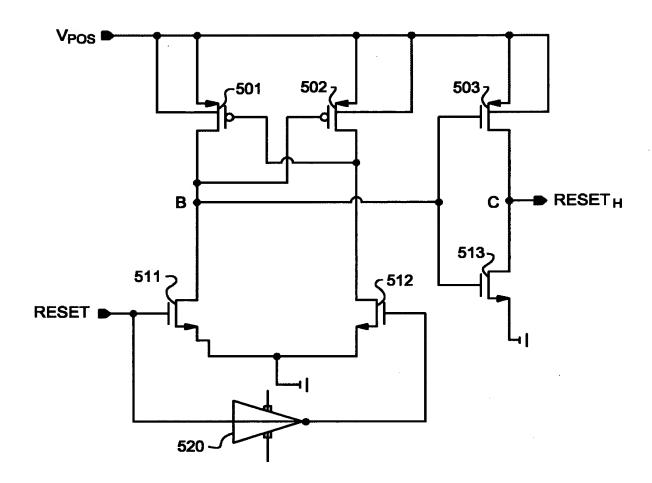Docket No.: M & G 50019.76US01/P05025

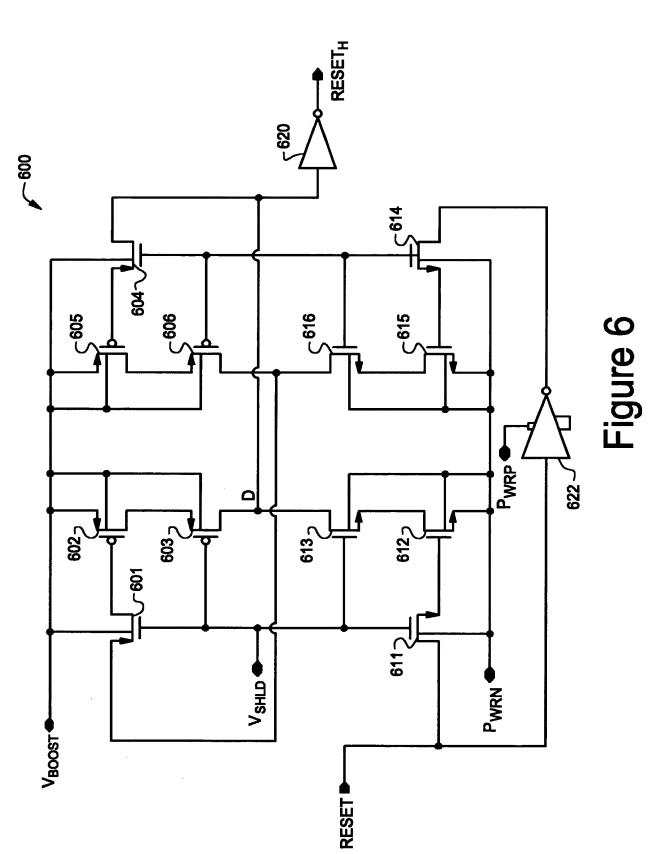6 / 11

Figure 6

HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No. M & G 50019.76US01/P05025
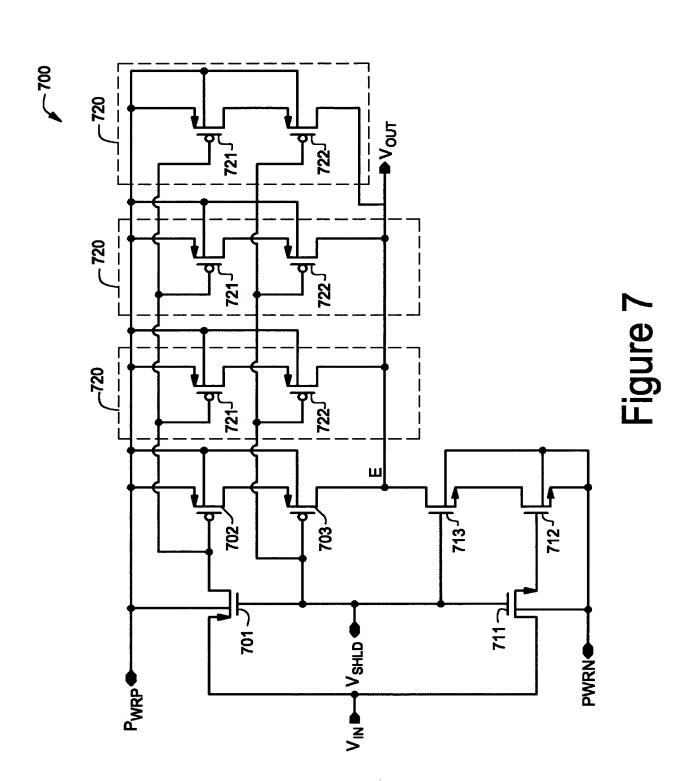
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Figure 7

HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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Figure 8

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

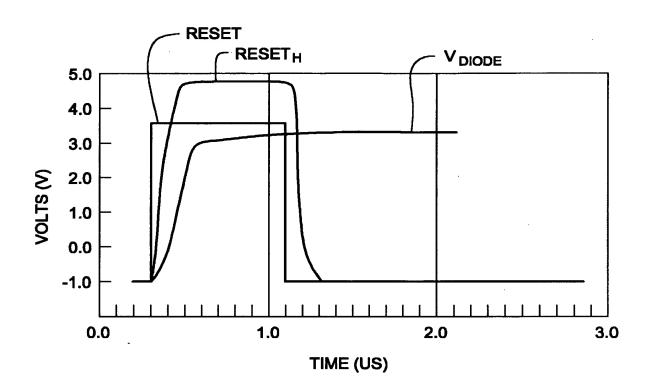9 / 11

Figure 9

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
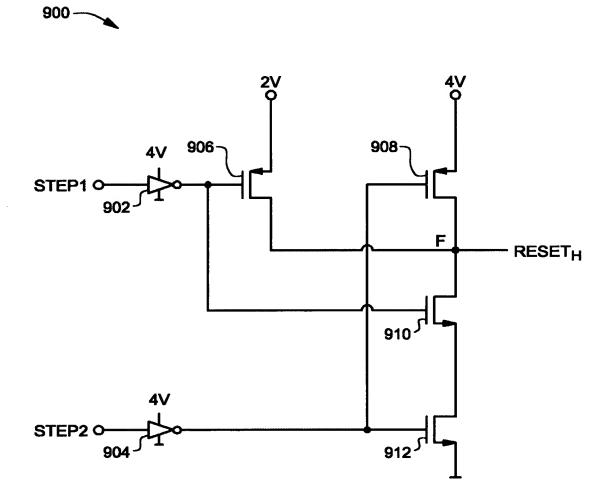THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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Figure 10

THE HIGH VOLTAGE RESET METHOD FOR INCREASING
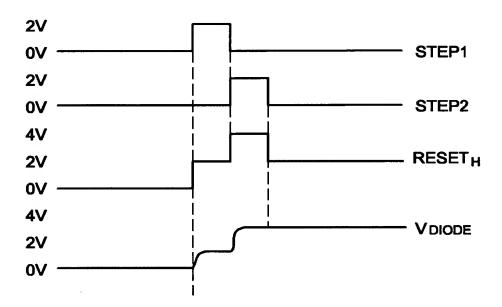THE DYNAMIC RANGE OF A CMOS IMAGE SENSOR
Inventors: Willem J. Kindt, Christina P. Phan, Shivani Gupta
Docket No.: M & G 50019.76US01/P05025

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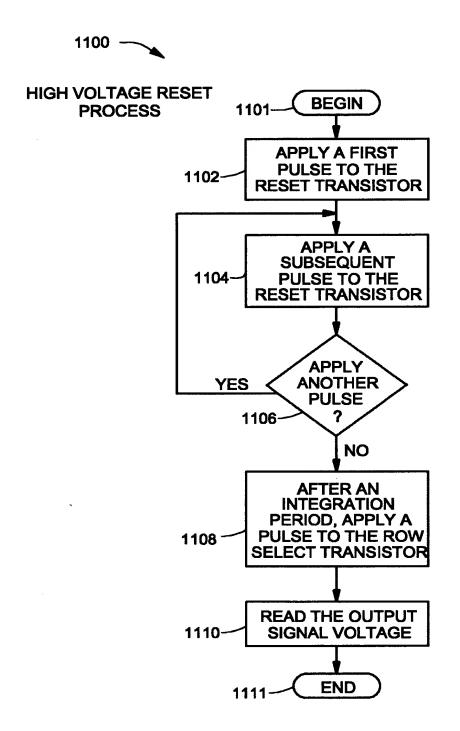
1100

HIGH VOLTAGE RESET
PROCESS

1101 — (BEGIN)

1102 — APPLY A FIRST PULSE TO THE RESET TRANSISTOR

1104 — APPLY A SUBSEQUENT PULSE TO THE RESET TRANSISTOR

1106 — APPLY ANOTHER PULSE ?

YES

NO

1108 — AFTER AN INTEGRATION PERIOD, APPLY A PULSE TO THE ROW SELECT TRANSISTOR

1110 — READ THE OUTPUT SIGNAL VOLTAGE

1111 — (END)

Figure 11